

Rombough, Kyrik

To: Rombough, Kyrik

Subject: FW: Hyperion Energy Center - Elk Point, SD

-----Original Message-----

From: Ed Cable [mailto:elcable@cablone.net]

Sent: Tuesday, January 15, 2008 2:49 PM

To: Gustafson, Brian

Subject: Hyperion Energy Center - Elk Point, SD

Brian,

This is the list that I had emailed to Mr. Pirner back in December. I very much appreciated meeting you this morning and look forward to working with you.

Please send a confirmation email that you received this email and attachment.

Very truly yours,

Ed Cable
(712) 899.2372

The message is ready to be sent with the following file or link attachments:
Review of PSD Permit Application 12.24.07

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01/15/2008

Review of PSD Permit Application

Proposed Hyperion Energy Center
Union County, South Dakota

12.21.07

This is a review of the PSD Permit Application prepared for Hyperion Refining, L.L.C. by RTP Environmental Associates, Inc with signature dates of 12.17.07 but was apparently submitted and filed on 12.20.07.

The following is an item by item review of the submittal as available on the website "hyperionec". However, it must be noted at this time that we believe this application should be rejected because it is incomplete and purposely vague. We believe it does not merit your further review and should not be allowed to initiate the time sequence for such an application.

- 1) Page 1: The claim is made that "it will rank among the cleanest, most environmentally-friendly in the world" without any substantiation and our review would conclude to the contrary.
- 2) Page 1: It makes the claim that the last refinery was built in 1976. There have been many refineries add capacity over the years and reconstructin within existing refineries and/or brownfield sites are increasing refining capacity by over 200,000 BPD each year.
- 3) Page 1: It makes the claim "the HEC will provide a model for the design of new and upgraded refineries". It does not substantiate such a claim and gives no comparisons. Our review indicates to the contrary. It also claims "it will incorporate best-in-class design principles and stringent environmental guidelines to protect our air, water, wetlands, and landscapes". Our review indicates it does not make any specific comparisons and in fact destroys without reference to mitigation many wetlands, water ways, and landscapes while obviously making a significant degradation of our current air quality.
- 4) Page 2: Section 1.2 refers to a project site plan supposedly in Appendix C, but upon inspection this appendix includes no plan sufficient to be considered a site plan for this type of application and the rough sketches that are included are not consistent with the site plan on file with the Rezoning Application currently on file. It is our understanding that all emission points must be located on a plan to be submitted in such an application and such is not the case. The application must also include all input locations such as pipelines, rail lines, roads, and utility systems that would include emission points-which it does not!

- 5) Page 4: 1.4 Project Emissions Summary does not include some of the sources noted in this report such as ethanol handling/blending facilities and other quantities and sources noted later.
- 6) Page 5: Footnote 2 would seem to indicate that the plant equipment can and probably will operate beyond the nominal rate. Someone must establish the limits of the operations and therefore establish the basis for emissions and therefore actual emissions to be encountered and limited. Furthermore, while it never states anywhere in this application, it is obvious that this is a "conceptual" application as no actual equipment is selected and actual performance noted. We are not aware of any case where this kind of application has been acceptable.
- 7) Page 7: While the applicant acknowledges they may bring in coal or coke, no transportation systems and the emissions associated therewith are included herein.
- 8) Page 11: Aren't the benzene emissions to be noted and calculated?
- 9) Page 13: The coke handling operations appear to be over-simplified and they, like many other forms of transportation and materials handling are not appropriately evaluated.
- 10) Page 16: The note that refinery flare emissions are from emergency emissions seems inadequate and incomplete as it also covers start-up and other situations which are currently not, but should be, regulated.
- 11) Page 16: We believe that all water and waste water operations must be include in emissions calculations.
- 12) Page 17: The applicant states that "the enclosed surface wastewater system constitutes a closed system". We are not aware there is really such a system and emissions can and will occur and must be tabulated.
- 13) Page 18: We believe the vents from the aeration tanks should be tabulated.
- 14) Page 19: We believe the WWTP emissions should be tabulated and included.
- 15) Page 19: We believe the loss from the tanks is not properly tabulated as well as the associated piping.
- 16) Page 20: We don't believe this is consistent with the remainder of the application and actual practice.
- 17) Page 21: We believe the coke handling is not accurately described and emissions calculated.
- 18) Page 23: We do not find the emission of the gas and syngas included in the summary statements.
- 19) Page 26: It does not appear that there are enough emergency generators to be consistent with the applicant's statements of what is intended to happen in a power outage. We believe the number and/or size of the generators need to be verified and the total electrical load thereof tabulated.
- 20) Page 28: It was our understanding that ARSD 74.36.09 had been approved. Please verify the status of such. Obviously this will change the comments on all 40CFR52 items form here on in this report.
- 21) Page 29: We both disagree that the site should be treated as a "single stationary source" as it is inconsistent with the current rezoning application and site plan on file. Furthermore there has been no discussion of the excess generating capacity (electrical) and we believe the numbers to be arbitrary and misleading, with the result that it is intended to be a single source to simplify the application and then

let the applicant sell off and/or operate in a different manner and with greater emissions.

- 22) Page 30: While this outlines the items required in this application such are not included herein in adequate detail to permit proper review and processing.
- 23) Page 31: We believe Par 52.21(q) does require the applicant to do certain things in order to facilitate the public review.
- 24) Page 32: Footnote 5 should include the nature of their request of the EPA and no further processing should occur until a response is made available.
- 25) Page 32: Footnote 6 makes what we believe is an incorrect assumption as the power plant may have to meet different standards.
- 26) Page 33: We disagree that HEC should be exempt from 40 CFR Part 60, subpart j.
- 27) Page 35: We are not aware that the tanks will not be subject to subpart Kb.
- 28) Page 36: We disagree that 3.2.10 does not require the applicability.
- 29) Page 41: We disagree with interpretations of 3.3.7 as to the requirements noted herein.
- 30) Page 48: All of Chapter 4 appears to ignore some of the most current real time technology that is available and an appropriate for the intended uses outlined herein.
- 31) Page 100: All the CO2 discussions need to be expanded to include the promised carbon capture and an economic evaluation of sequestration.
- 32) Page 126: The anticipated 8,760 hours of flare operation seem incorrect and if this includes upsets, the actual emissions will be grossly different.
- 33) Page 130: The anticipated equipment leaks seem far too low.
- 34) Page 136:m The statement that there will be "no quantifiable industrial growth ...as a direct result of the refinery and power plant" is contrary to the applicants statements elsewhere and experience by others everywhere in the United States. Proper consideration should be given and this entire section properly redone.
- 35) Page 136: The statement that "other industrial operations... such as ethanol... are speculative" is contrary to the applicants statements elsewhere and the experience in the industry.
- 36) Page 136: The anticipated growth of 32,000 in the area is not incidental and the resultant emissions should be included in the analysis.
- 37) Page 140: The number and length of truck trips is grossly underestimated.
- 38) Page 142: The conclusion that the impact on the air quality in the region will not be significant is contradictory compared to the notes found later in this report (appendix E) which says they are significant by the current standards.
- 39) Page 7 of the Appendix A-Equipment and all thereafter that are not consecutively numbered. First the emissions cannot be calculated because the nature of the crude oil is not stated or assumed. However in addition to that, the following equipment worksheets are incomplete and best could be described as to indicate intent but certainly not actual or intended performance as no locations and manufacturers are given in most instances (and therefore not considered sufficient for review and processing):
 - a) Atmospheric crude charge heaters (2)
 - b) Vacuum charge heaters (2)

- c) Naphtha hydrotreater charge heater
- d) Naphtha hydrotreater stripper reboiler heater
- e) Naphtha splitter reboiler heater
- f) Distillate hydroheater feed heater
- g) Delayed coker heater (4)
- h) Platformer charge and interheater (6)
- i) Oleflex heater
- j) Reformate splitter reboiler
- k) Hydrocracker fractionator feed heater (2)
- l) Hydrocracker heater (6)
- m) Platform catalyst regenerator (2)
- n) Oleflex catalyst regenerator
- o) Cooling towers (?)
- p) Sulfur recovery plant (?)
- q) Railcar loading racks (?)
- r) Truck loading racks (?)
- s) Wastewater treatment plant
- t) Petroleum coke storage building (?)
- u) Slag loading building (?)
- v) Fire water pumps (2)
- w) Combined cycle gas turbines (5)
- x) Emergency generators (4)

40) Appendix E:

- a) At least 4 emissions were significant in contrast to previous claims.
- b) Please provide protocol submitted in March 2007, and how could any agreement have been reached at that time?
- c) Page 2-results are stated and not demonstrated.
- d) Page 5: The partial site plan is incomplete and does not locate all emission points. It furthermore is inconsistent with the rezoning application on file in Union County.
- e) Pages 8 & 9: It stated but did not demonstrate that the receptor grid results were insignificant.
- f) Page 11: Why are Texas standards being incorporated? Why not California if we are not using ours (if we have any)?
- g) Page 14: Please state why, when, where and how SD DENR made such a determination. (6.2)
- h) Page 15: This demonstrates that some emissions are significant.
- i) Pages 18-20: This demonstrates the danger to adjacent residents and does not indicate the additional report requested by DENR. Furthermore each should be redone with the proper center of the sphere of influence which will show even more risk to the adjacent residents.

41) Appendix G: This does not refer to a specific report date and we have been informed that the report has not been written as of 12.14.07. The full draft of this report must be made available and part of this application.

42) Appendix H: This does not include an analysis of the effects on the three predominant crops in the area- namely corn, beans, and hay (both grass and alfalfa). In addition the effects on livestock was ignored.